

The Second NASA/DoD Workshop on Evolvable Hardware

July 13-15, 2000

Palo Alto, California, USA



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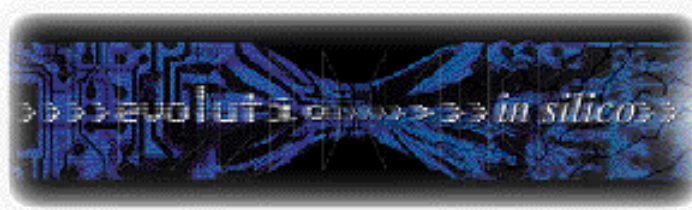
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Evolvable hardware is an emerging field that applies simulated evolution to the design and adaptation of physical structures, particularly electronic systems. The Second NASA/DoD Workshop on Evolvable Hardware (EH-2000) will bring together leading researchers and technologists from academia, government, and industry to discuss advances and the state-of-the-art in this field.

Evolvable hardware techniques enable self-reconfigurability and adaptability of programmable devices and thus have the potential to significantly increase the functionality of deployed hardware systems. Moreover, these techniques have the potential to reduce costs by automating numerous design and optimization tasks encountered in engineering design.

A focus of this year's workshop is on real-world applications of evolvable hardware. Current application areas include adaptive and reconfigurable computing, circuit and antenna design, and evolutionary robotics. Evolvable hardware methods could also be effective in dealing with increased complexity and reliability requirements in areas such as sensors, MEMS, biomolecular design, quantum computing, and nanoelectronics.

Topics include, but are not limited to

- Evolutionary hardware design (including design of mechanical systems, electronic circuits synthesis)
- Real-world applications of evolvable hardware
- Co-evolution methods
- Online and offline evolution methods
- Hardware/software co-evolution
- Testbeds and evolutionary design automation tools
- Self-repairing hardware
- Self-reconfiguring hardware
- Embryonic hardware
- Morphogenesis
- Novel devices and hardware platforms suitable for evolution
- Adaptive hardware, adaptive computing
- Adaptive flight hardware

Submission of papers

Prospective authors are invited to submit four copies of their paper (not exceeding 10 pages) to the address below. The paper should be submitted in single-spaced, 10 point type on a 8.5" X 11" or equivalent paper with 1" margins on all sides. Each submission should contain the following items: (1) title of paper, (2) author name(s), (3) first author physical address, (4) first author e-mail address, (5) first author phone number, (6) a maximum 200 words abstract. Accepted papers will be published in the workshop proceedings.

Web Site: <http://ic-www.arc.nasa.gov/ic/eh2000/>

Papers should be sent to

Jason Lohn	Submissions Deadline:	March 17, 2000
EH-2000 Workshop	Author notification:	April 17, 2000
MS 269-1	Camera Ready	
NASA Ames Research Center	Manuscript deadline:	May 15, 2000
Mountain View, CA 94035, USA	Workshop:	July 13-15, 2000